



VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

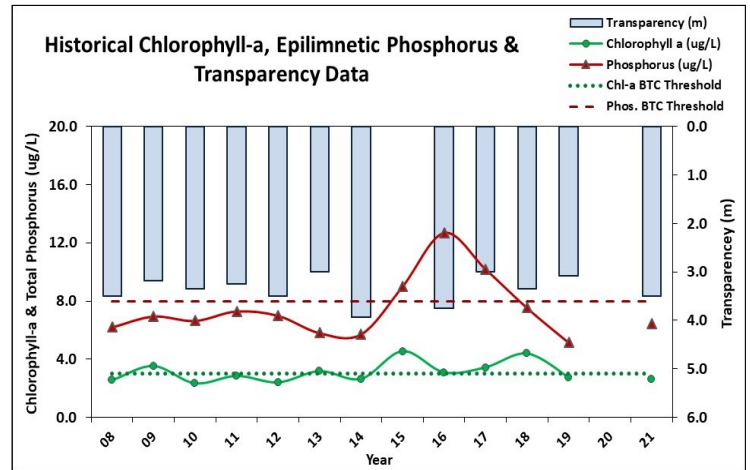
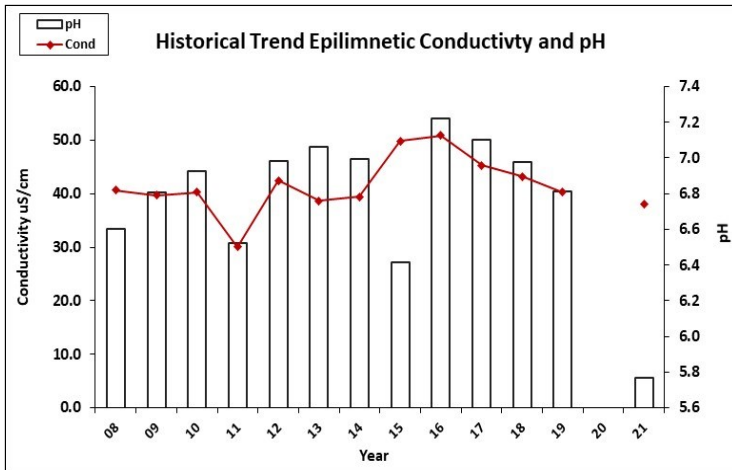
SPECTACLE POND, ENFIELD

2021 DATA SUMMARY

RECOMMENDED ACTIONS: Great job sampling in 2021! Pond quality was representative of oligotrophic, or high quality, conditions which is a positive sign following the record rainfall that occurred in July of 2021. However, the rainfall resulted in a much lower pH level and more acidic waters. Increase monitoring frequency to once per month during the summer, typically June, July and August to better assess seasonal and annual variations in water quality. Encourage shorefront property owners to be certified LakeSmart through NH LAKES lake friendly living program. Keep up the great work!

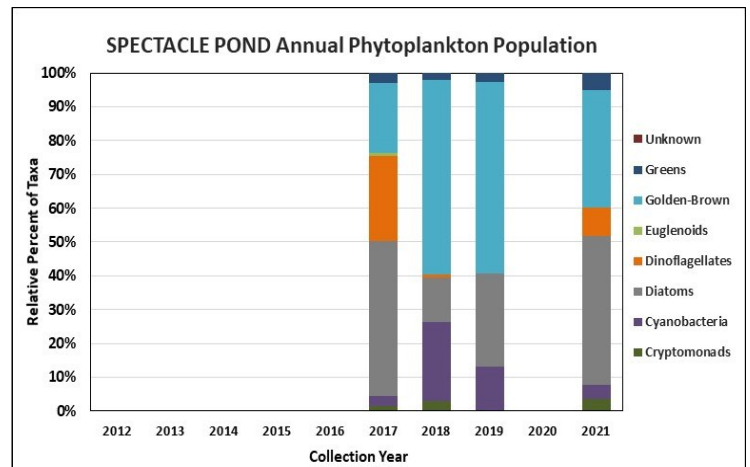
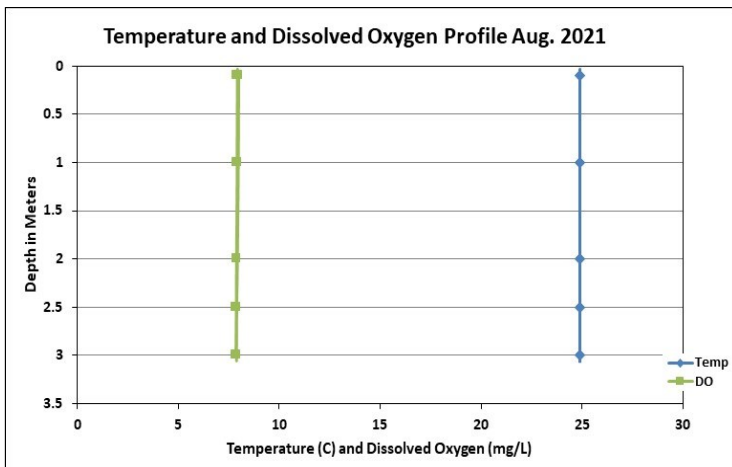
HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Parameter	Trend
Conductivity	Stable	Chlorophyll-a	Stable
pH (epilimnion)	Stable	Transparency	Stable
		Phosphorus (epilimnion)	Stable



DISSOLVED OXYGEN AND PHYTOPLANKTON

(Note: Information may not be collected annually)





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OBSERVATIONS *(Refer to Table 1 and Historical Deep Spot Data Graphics)*

- ◆ **CHLOROPHYLL-A:** Chlorophyll level was within a low range in August and was less than the state median and the threshold for oligotrophic lakes. Historical trend analysis indicates stable chlorophyll levels since monitoring began.
- ◆ **CONDUCTIVITY/CHLORIDE:** Epilimnetic (deep spot) conductivity level was low and less than the state median. Epilimnetic chloride level was also low and approximately equal to the state median. Historical trend analysis indicates relatively stable epilimnetic conductivity levels since monitoring began. Outlet conductivity level was slightly greater than the deep spot but remained within a low range for NH lakes.
- ◆ **COLOR:** Apparent color measured in the epilimnion indicated the water was lightly tea colored, or light brown.
- ◆ **TOTAL PHOSPHORUS:** Epilimnetic phosphorus level was within a low range and was less than the state median and the threshold for oligotrophic lakes. Historical trend analysis indicates relatively stable epilimnetic phosphorus levels since monitoring began. Outlet phosphorus level was also within a low range.
- ◆ **TRANSPARENCY:** Transparency measured with (VS) and without (NVS) the viewscope was excellent as the Secchi disk was visible on the pond bottom. Historical trend analysis indicates stable NVS transparency since monitoring began.
- ◆ **TURBIDITY:** Epilimnetic and Outlet turbidity levels were within a low range and below average for those stations.
- ◆ **pH:** Epilimnetic pH level was acidic and less than the desirable range 6.5-8.0 units. Historical trend analysis indicates stable, yet variable, epilimnetic pH levels since monitoring began. Outlet pH level slightly acidic and less than desirable.

Station Name	Table 1. 2021 Average Water Quality Data for SPECTACLE POND - ENFIELD									
	Alk. (mg/L)	Chlor-a (ug/L)	Chloride (mg/L)	Color (pcu)	Cond. (us/cm)	Total P (ug/L)	Trans. (m)		Turb. (ntu)	pH
							NVS	VS		
Epilimnion	7.5	2.60	5	30	38.0	6	3.50	3.50	0.50	5.77
Outlet					47.4	8			0.40	6.22

NH Median Values

Median values generated from historic lake monitoring data.

Alkalinity: 4.5 mg/L **Chlorophyll-a:** 4.39 ug/L
Conductivity: 42.3 uS/cm **Chloride:** 5 mg/L
Total Phosphorus: 11 ug/L **Transparency:** 3.3 m
pH: 6.6

NH Water Quality Standards

Numeric criteria for specific parameters. Water quality violation if thresholds exceeded.

Chloride: > 230 mg/L (chronic) **Turbidity:** > 10 NTU above natural
E. coli: > 88 cts/100 mL (beach)
E. coli: > 406 cts/100 mL – surface waters
pH: between 6.5-8.0 (unless naturally occurring)